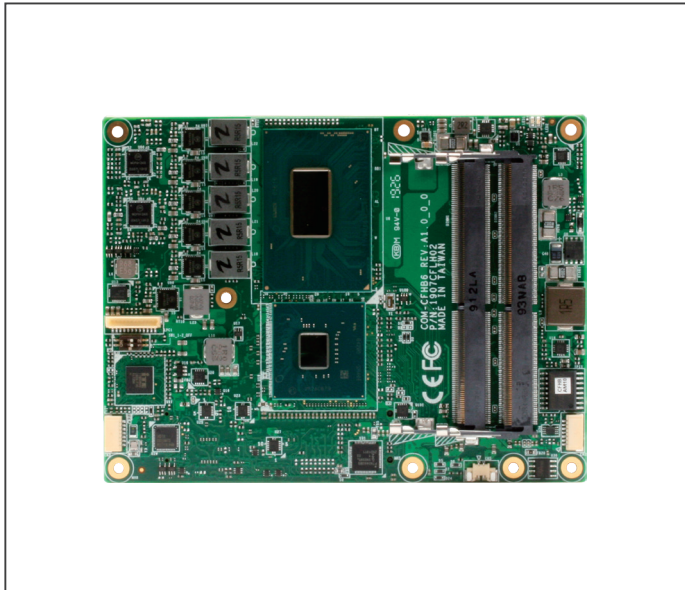


## COM Express Type 6 Basic Size with 8th/9th Generation Intel® Core™ H-Series / Xeon™ Processors

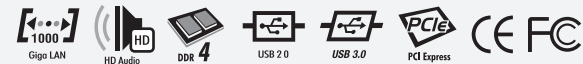


## Specifications

System	
Form Factor	COM Express Basic Size, Type 6
CPU	Intel® 8th/9th Gen Intel® Core™ / Xeon™-E Series Processor (i7-8850H / i5-8400H / i3-8100H / Xeon™-E2176M)
CPU Frequency	Up to Xeon-E2176M, 6c/ 2.7GHz
Chipset	Intel® QM370/CM246 PCH
Memory Type	S0-DIMM DDR4 2666 Socket x 3
Max. Memory Capacity	up to 48GB, ECC Support ( only with CM246 PCH)
BIOS	AMI BIOS, Legacy free BIOS
Wake on LAN	Yes
Watchdog Timer	255 Levels
Power Requirement	Normal: +12V
Power Supply Type	AT/ATX Selection
Power Consumption (Typical)	Intel® Xeon® E-2176M CPU @2.70GHz, DDR4 16GB x3, Full load: 62.4W, 5.2A@12V
Dimension (L x W)	4.92" x 3.75" (125mm x 95mm)
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C) -20°C ~ 70°C by screening
Storage Temperature	-4°F ~ 158°F (-20°C ~ 70°C)
Operating Humidity	10% ~ 95% relative humidity, non-condensing
MTBF (Hours)	80,000
Certification	CE/FCC Class A
Display	
VGA/LCD Controller	Intel® GT2-P630 (E2176M) / GT2-630 (I7/I5/I3 Series)
Video Output	VGA, 18/24b 2ch LVDS/eDP, DDI x2 (3rd one can be added if VGA not require)
LVDS Interface	Supports 18bit and 24bit dual channel
I/O	
Ethernet	Intel® Ethernet I219 GbE x1
Audio	HD Audio
USB Port	USB 2.0 x 8 , USB 3.0 x 4
Serial Port	2-wire UART(TX/RX) x 2
HDD Interface	SATA III x4
Onboard Storage	—
Expansion Slot	PCIe [x1] x 8 PCIe[x16] x1 LPC x1 SMBUS x 1 2-wire UART x2
GPIO	8-bit
TPM	Support 1.2 / 2.0(Optional)

## Features

- Intel® Coffee Lake-H 8th / 9th Generation i3/i5/i7/ Xeon-E Processors
- 3x SODIMM DDR4 2666 Memory up to 48GB, ECC support (by SKU, with CM246 PCH)
- Intel I219 Gigabit Ethernet
- VGA, 18/24-bit 2ch LVDS or 4-lane eDP, DDI up to 3
- High Definition Audio Interface
- SATA x 4, USB2.0 x 8, USB 3.0 X 4
- PCI-Express [x1] x 8, PCI-Express[x16] x1
- GPIO x 8, SMBus, I2C, LPC
- COM Express Basic Size, Pin-Out Type 6, 125mmx95mm



## Packing List

- COM-CFHB6-A10

## Optional Accessories

- ECB-920A-A10-0001  
COMe Type 1/6/10. Carrier Board. ATX. GbE. 8USB, 2COM. 4SATA. PCIe. AT/ATX. Legacy Free. Rev. A.10
- COM-CFHB6-FAN01  
CPU Cooler. FAN+Heat Sink. 125\*95\*41.55mm for COM-CFHB6
- COM-CFHB6-HSP01  
Heat Spreader. 125\*95. Black. COM-CFHB6
- COM-FAN01  
CPU Cooler. 125\*95. Silver. use w/HSP

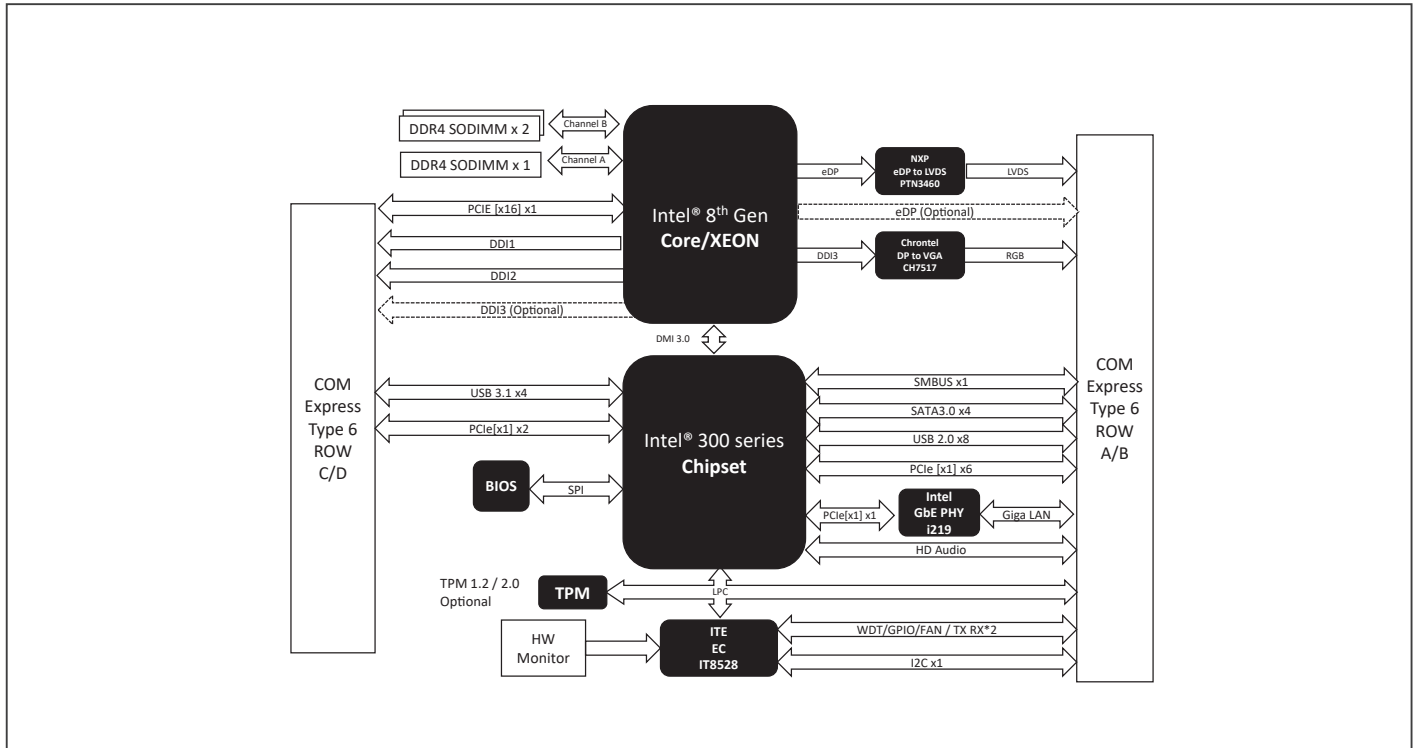
## CPU Support Matrix

CPU	Core/Thread. Base Clock/Turbo	Cache	ECC Support	Graphic	Chipset
XEON E-2176M	6c/12t 2.7GHz/4.4GHz	12M	V	GT2-P630	CM246
i7-8850H	6c/12t 2.6GHz/4.3GHz	9M	X	GT2-630	QM370
i5-8400H	4c/8t 2.5GHz/4.2GHz	8M	X	GT2-630	QM370
i3-8100H	4c/4t 3.0GHz	6M	X	GT2-630	QM370

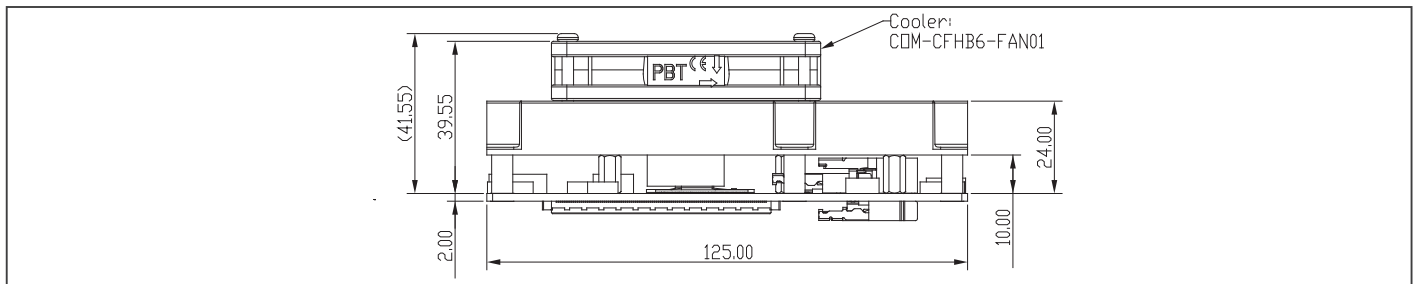
## CPU Support Matrix 2

CPU	Core/Thread. Base Clock/Turbo	Cache	ECC Support	Graphic	Chipset
XEON E-2276ME/ML	6c/12t ; HE:2.8GHz/4.5GHz ; HL:2.0GHz/4.2GHz	12M	V	GT2-P630	CM246
XEON E-2254ME/ML	4c/8t; HE:2.6GHz/3.8GHz; HL:1.7GHz/3.5GHz	8M	V	GT2-P630	CM246
i7-9850HE/HL	6c/12t ; HE:2.7GHz/4.4GHz; HL:1.9GHz/4.1GHz	9M	X	GT2-630	QM370
i3-9100HL	4c/4t; 3.0GHz	6M	V	GT2-630	CM246

## Block Diagram Unit: mm



## Dimension Unit: mm



## Ordering Information

Part Number	COM Express Type	CPU	Memory	Display	LVDS	Storage	LAN	USB	UART	Expansion	Power	Temperature	Other
COM-CFHB6-A10-0001	Type 6	Xeon E-2176M	DDR4 SO-DIMM x 3	VGA, DDIx2 (up to 3)	18/24b 2ch LVDS/eDP	SATAIII x4	GbE x1	USB 2.0 x8 USB 3.1 x4	2-wire (Tx/Rx) x 2	PCIe [x1] x 8 PCIe[x16] x1 LPC x1 SMBUS x 1	+12V	0°C ~ 60°C	—
COM-CFHB6-A10-0002	Type 6	i7-8850H	DDR4 SO-DIMM x 3	VGA, DDIx2 (up to 3)	18/24b 2ch LVDS/eDP	SATAIII x4	GbE x1	USB 2.0 x8 USB 3.1 x4	2-wire (Tx/Rx) x 2	PCIe [x1] x 8 PCIe[x16] x1 LPC x1 SMBUS x 1	+12V	0°C ~ 60°C	